

Remarks

Claims 1-29 and 31-40 are pending in the application and are presented for reconsideration. Claims 1, 21, 22, 24, 31, 37 and 40 have been amended; Claims 2-20, 23, 25-29, 32-36, and 38-39 remain in the application unchanged. No new matter has been added.

Claim Objections

Claims 22, 24, 31, and 37 are objected to for various informalities.

Claim 22, line 2 has been amended to replace "the variation function" with --the user-defined variation function--.

Claim 24, line 2 has been amended to replace "the variation function" with --the user-defined variation function--.

Claim 31, line 1 has been amended to replace "the variation function" with --the user-defined variation function--.

Claim 31, line 2 has been amended to replace "the measurement" with --the measurement process--.

Claim 37, line 1 has been amended to replace "A method as in claim 21" with --A computer readable medium as in claim 21--.

Claim 37, line 1 has been amended to replace "said variation function" with --the user-defined variation function--.

Claim Rejections

Claim 40 is rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-29 and 31-39 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1-4, 7-9, 14-29, 31-33, and 36-40 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Perez et al. (U.S. Pat. No. 6,907,557, hereinafter "Perez") (incorporating by reference Grey et al. (U.S. Pat. No. 6,401,220, hereinafter "Grey")) in view of Organ et al. (U.S. Pat. No. 6,449,741 to

Organ et al.).

The Examiner's rejections of the claims are respectfully traversed.

I. Rejection of Claims Under 35 U.S.C. § 112, Second Paragraph

Claim 40 is rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner states that the language "at least one addition and each" is confusing because it is not clear if one or more tabs is recited. Claim 40 has been amended to recite: "a physical interface operable to execute the program instructions on the computer readable medium and to supply signals to a device under test and receive signals from a device under test." The physical interface now contains a structural and operable relationship to the computer readable medium. The Applicant respectfully submits that Claim 40 is now clear, and that the rejection of Claim 40 under 35 U.S.C. § 112, second paragraph is now overcome.

II. Rejections of Claims Under 35 U.S.C. § 101

Claims 1-29 and 31-39 are considered to be non-statutory because the Examiner does not consider Claims 1-29 and 31-39 to produce a "useful, concrete and tangible result." Claims 1 and 21 have each been amended to include a "useful, concrete and tangible result", namely "an executable variation of the measurement process". The rejection of Claims 1-29 and 31-39 under 35 U.S.C. § 101 are now believed to be overcome.

III. Rejections of Claims Under 35 U.S.C. § 102/103

1. Legal standard for Rejecting Claims Under 35 U.S.C. §102/103

Under 35 U.S.C. § 102, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628 (Fed. Cir.), cert. denied, 484 U.S. 827 (1987).

The standard for obviousness under 35 U.S.C. §103 is whether the claimed invention would have been obvious to those skilled in the art in light of the knowledge made available by the reference or references. In re Donovan and Ryan, 184 USPQ 414, 420, n. 3 (CCPA 1975). It requires consideration of the entirety of the disclosures of the references. In re Rinehart, 189 USPQ 143, 146 (CCPA 1976). All limitations of the claims must be considered. In re Boe, 184 USPQ 38, 40 (CCPA 1974). In making a determination as to obviousness, the references must be read without benefit of Appellants' teachings. In re Meng, 181 USPQ 94, 97 (CCPA 1974). In addition, the propriety of a 35 U.S.C. §103 rejection is to be determined by whether the reference teachings appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed substitution, combination, or other modifications. In re Lintner, 173 USPQ 560, 562 (CCPA 1972).

In order to combine references, the references must suggest the combination. *In re Bond*, 15 USPQ2d 1566, 1568 (CAFC 1990) ("Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.") (quoting *Carella v. Starlight Archery and Pro Line*, 231 USPQ 644, 647 (CAFC 1986)). There is no suggestion to combine, however, if a reference teaches away from its combination with another source. *Tec Air Inc. v. Denso Manufacturing Michigan Inc.*, 52 USPQ2d 1294, 1298 (Fed. Cir. 1999) (citing *In re Fine* 837 F.2D 1071, 1074, 5 USPQ2d 1596, 1597 (Fed. Cir. 1988)); See also *Winner International Royalty Corp. v. Wang*, 53 USPQ2d 1580, 1587 (Fed. Cir. 2000) ("If [the cited reference] does in fact teach away from [Applicant's

invention], then that finding alone can defeat [an] obviousness claim.” (annotation added)). A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant . . . [or] if it suggests that the line of development flowing from the reference’s disclosure is unlikely to be productive of the result sought by the applicant.” *In re Gurley*, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994).

In addition, if when combined, the references “would produce a seemingly inoperative device,” then they teach away from their combination. *Tec Air*, 52 USPQ2d at 1298 (citing *In re Spannable*, 405 F.2d 578, 587, 160 USPQ 237, 244 (CCPA 1969)); See also *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (finding no suggestion to modify a prior art device where the modification would render the device inoperable for its intended purpose).

2. Response to Rejections of Claims Under 35 U.S.C. § 102

a. Claims 1-10

Applicant's Claim 1 recites:

A method for a user of a measurement process to cause a variation in the measurement process, the measurement process comprising a sequence of operations controlled by a computer program containing a variation point at which a function call instruction is inserted by a designer of the computer program to pass control to a user-defined variation function, said method comprising:

determining the variation to the measurement process;
providing a user-generated process modification software module comprising the user-defined variation function for causing the variation; and

associating the function call instruction with the user-defined variation function prior to execution of the measurement process,
wherein the function call instruction passes control to the user-defined variation function when the variation point in the computer program is reached and wherein the user is prevented from modifying the measurement process other than through the user-defined variation function.

The Perez and Grey Reference

US Patent Application Serial No. 09/955,796
Docket No. 10010804-1

The Examiner cites Perez, which incorporates Grey by reference, as anticipating claim 1. In particular, the Examiner states that Perez discloses a method for a user of a measurement process to cause a variation in the measurement process (Grey, col. 2, lines 55-60 and col. 11, lines 36-40), the measurement process comprising a sequence of operations controlled by a computer program (Grey, col. 11, lines 41-56 and col. 12, lines 6-15) containing a variation point at which a function call instruction is inserted by a designer of the computer program (Grey, col. 12, lines 41-53) to pass control to a user-defined variation function (Grey, col. 14, lines 52-65), said method comprising determining the variation to the measurement process (Grey, col. 13, lines 50-58), providing a user-generated process modification software module comprising the user-defined variation function for causing the variation (Grey, col. 12, lines 41-53 and col. 14, lines 52-65), and associating the function call instruction with the user defined variation function prior to execution of the measurement process, wherein the function call instruction passes control to the user-defined variation function when the variation point in the computer program is reached (Grey, col. 13, lines 50-58 and col. 14, lines 52 to col. 15, line 9).

Perez and Grey disclose a software tool, the "TestStand", that allows a user to design and edit test sequences. The user is not prevented from modifying a test sequence created using the tool. This type of system is described on page 2, line 16, to page 3, line 9, of the specification for the present invention. In particular, Perez and Grey describe systems in which the user is free to create a test procedure through definition of the sequence of steps, whereas Applicant's Claim 1 provides for a user to *modify* a process without allowing the user to modify the original computer program. The process itself is determined by the designer of the computer program. Using variation points, the user may make variations to the process without the risk of invalidating the process itself or even of disclosing the source code of the process to disclose proprietary information. In contrast, Perez and Grey provide no constraints to prevent a user from defining an invalid process. Thus, Perez and Grey do not teach or suggest "wherein the user is prevented from modifying the

measurement process other than through the user-defined variation function" as recited in Applicant's Claim 1.

The Organ Reference

Organ does not make up for the deficiencies of Perez and Grey in meeting Applicant's Claim 1. The Examiner cites Organ as teaching a single platform electronic tester comprising means for controlling testing of a DUT (col. 4, lines 26-34) using a program executed by a user (col. 4, lines 45-55) wherein the user is allowed to arrange the flow of test execution (col. 4, lines 56-64) for performing measurements (col. 6, lines 29-32) while the operator is allowed to selectively control modification of the test by preventing the user from modifying the test/measurement process/program (col. 13, lines 30-32 and col. 14, lines 13-17). The Examiner states that it would have been obvious to modify the invention of Perez to explicitly indicate that the program designer prevents the user from modifying the measurement process through the source code, thereby only allowing the user to modify the measurement process when desired (i.e., programmed) by the designer, as taught by Organ, because Organ suggests that the combination would have improved the operation of Perez by allowing increased control by the designer to insure that only those authorized can edit the source code of the program (Organ, col. 13, lines 30-32 and col. 14, lines 13-17) and thereby reduce the chance of a user improperly editing the program, as is recognized as being a problem by Perez (Perez, col. 10, line 57, to column 11, line 14).

Organ teaches a single platform electronic tester with a graphical user interface that allows a user to arrange the flow of test program execution that contains digital, analog, and memory test components. (Organ, col. 4, lines 56-59, col. 13, lines 19-40, and FIG. 7). The graphical user interface includes a mode button 202 to set whether the graphical user interface is operating in the production mode or the engineer mode. In the engineer mode, the user can modify the test sequence; in the production mode the operator cannot modify the test sequence. The user interface is displayed in Organ, FIG. 8 as operator tool

160. The operator tool 160 allows protection to prevent unauthorized access to the tools that allow modification of a test program.

Organ does not teach or suggest the limitation "wherein the user is prevented from modifying the measurement process other than through the user-defined variation function" of Claim 1 which is missing from the Perez and Grey references. In Organ, the operator tool 160 operates in either the engineer mode, which allows modification to the test sequence, or in the production mode, which does not allow modification to the test sequence. In the engineer mode, the user is free to modify the test sequence at will. However, once the test sequence (or measurement process) is placed into the production mode, no changes are allowed to the test sequence. At any given time, the operator tool 160 can operate only in one or the other mode. Thus, Organ does not teach simultaneous allowing modification of the measurement process through a user-defined variation function and preventing modifying the measurement process other than through the user-defined variation function. Thus, even if Organ were operating in the production mode, which prevents modification of the arranged test flow execution of the measurement process, Organ could not be combined with Perez and Grey to prevent modification of the arranged test flow execution of the measurement process in Perez and Grey, because it would make the TestStand Engine 220 of Perez and Grey *inoperable for its intended purpose*, namely, "creating, editing, executing, and debugging sequences" (Grey, col. 13, lines 32-33).

Since Organ in combination with Perez and Grey would render Perez and Grey inoperable for its intended purpose, per *Tec Air, supra*, *Winner International Royalty Corp., supra*, and *In re Gurley, supra*, Organ actually teaches away from the Examiner's proposed combination. Thus, Perez, Grey, and Organ cannot even be combined to formulate an obvious-type rejection under 35 U.S.C. § 103. Ellis does nothing to overcome the deficiencies of Perez, Grey, and Organ in meeting the limitation "wherein the user is prevented from modifying the measurement process other than through the user-defined variation function" missing from Perez, Grey, and Organ. Accordingly, Applicant respectfully

submits that the 35 U.S.C. § 103 rejection of Claim 1 should be withdrawn and that Claim 1 is now in position for allowance.

Claims 2-20 each depend from independent base claim 1 and add further limitations. For at least the same reasons that Claim 1 is not shown, taught, or disclosed by the cited references, Claims 2-20 are likewise not shown, taught, or disclosed. Thus, Applicant respectfully submits that the rejection of claims 2-20 should be withdrawn.

b. Claims 21-29 and 31-40

Claim 21 recites similar limitations to Claim 1, including "wherein the user is prevented from modifying the measurement process other than through the user-defined variation function." For at least the same reasons that Claim 1 is not shown, taught, or disclosed by the cited references, Claim 21 is likewise not shown, taught, or disclosed. Thus, Applicant respectfully submits that the rejection of Claim 21 should be withdrawn.

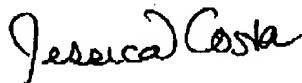
Claims 22-29 and 31-40 each depend from independent base Claim 21 and add further limitations. For at least the same reasons that Claim 21 is not shown, taught, or disclosed by the cited references, Claims 22-29 and 31-40 are likewise not shown, taught, or disclosed. Thus, Applicant respectfully submits that the rejection of Claims 22-29 and 31-40 should be withdrawn.

Conclusion

In view of the foregoing remarks, it is respectfully submitted that none of the references cited by the Examiner taken alone or in any combination shows, teaches, or discloses the claimed invention, and that Claims 1-29 and 31-40 are in condition for allowance. Reexamination and reconsideration are respectfully requested.

Should the Examiner have any questions regarding this amendment, or should the Examiner believe that it would further prosecution of this application, the Examiner is invited to call the undersigned.

Respectfully submitted,



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